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Message-Id: <199606211354.IAA12958@uro.theporch.com>
Errors-To: ws4s@midtenn.net
Reply-To: glowbugs@theporch.com
Originator: glowbugs@theporch.com
Sender: glowbugs@theporch.com
Precedence: bulk
From: glowbugs@theporch.com
To: Multiple recipients of list <glowbugs@theporch.com>
Subject: GLOWBUGS digest 219
X-Listprocessor-Version: 6.0c -- ListProcessor by Anastasios Kotsikonas
X-Comment: Please send list server requests to listproc@theporch.com
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GLOWBUGS Digest 219

Topics covered in this issue include:

- 1) RE: linear amp question
by "Gable, Edward M" <emg@rfpo2.rfc.comm.harris.com>
- 2) WW II Foxhole Radio (fwd)
by Stan Skelton <sskelton@cln.etc.bc.ca>
- 3) linear amp again
by Bob Roehrig <broehrig@admin.aurora.edu>

Date: Thu, 20 Jun 96 10:35:00 DST
From: "Gable, Edward M" <emg@rfpo2.rfc.comm.harris.com>
To: glowbugs <glowbugs@theporch.com>
Subject: RE: linear amp question
Message-ID: <31C961CF@smtpgate.rfc.comm.harris.com>

<snip>

>AT that point the plate current is 240ma so input power is 184 watts, power out

>measured on a Bird is 100 watts.

>I even tried increasing the screen voltage, since

>280 is a bit lower than the recommended 300. At 350V, the power out only

>went up to 130 watts. Any ideas why the output is so low? 73 de Bob,
K9EUI

<snip>

Bob, ur efficiency is approaching 70% at 130 out/184 in. That's great !

(But,
I expect is really isn't running linear) Four 807's may handle more power,
but
isn't it a function of input power and efficiency that determines the
output. Four
813's would still only put out that amount of power with that input, so it
isn't a matter
of the tube's capability. In GG service ur input power also appears at
the output,
but I suspect that isn't too much of a factor. Sounds like a fun OT
project, have fun
with it. 73, Ed K2MP <emg@rfc.comm.harris.com>

Date: Thu, 20 Jun 1996 08:00:24 -0700 (PDT)
From: Stan Skelton <sskelton@cln.etc.bc.ca>
To: qrp maillist <qrp-l@lehigh.edu>
Cc: glowbugs list <glowbugs@theporch.com>
Subject: WW II Foxhole Radio (fwd)
Message-ID: <Pine.3.89.9606200719.A26906-0100000@sparky>

I know this was a while ago and I forgot which maillist it was on, so
sorry for dups, but a couple of people expressed interest in "foxhole"
radio rx's and wanted to know where to get the "blue" blades...Here's
the author's e-mail address if you want some..
TtFn....Stan T.M. VE7 SKT QRP-L #34

----- Forwarded message -----
Date: Wed, 19 Jun 1996 19:10:03
From: Lance Borden <lborden@gnn.com>
To: sskelton@cln.etc.bc.ca
Subject: WW II Foxhole Radio

Hi Stan!!

I was pleased to see you mention my article on the WW II Foxhole Radio on
the W8EDU Ham Radio Projects Page. Thanks for referencing the publication
and me. I hope you & your friends enjoy building it. I have a small stock
of PAL Blue Blades if anyone needs any.

I have written an article on building a one-tube set that will be in the
fall issue of "ELECTRONICS HANDBOOK."

73s

Lance

Date: Thu, 20 Jun 1996 11:54:41 -0500 (CDT)
From: Bob Roehrig <broehrig@admin.aurora.edu>
To: glowbugs <glowbugs@theporch.com>
Subject: linear amp again
Message-ID: <Pine.ULT.3.91.960620112913.6848B-100000@admin.aurora.edu>

Thanks to the 4 of you that responded. I didn't include some other details I perhaps should have. Yes, the output is PI net. I don't know the value of the plate RF choke but I would suspect at least 5mh. I used the largest one I could find that looked like it would have enough inductance to work on 160 meters. The tubes were NOS and checking them on the Hickok tube tester, they ran above the charted transconductance so they must be OK.

The 184 watts input was with the lower screen voltage (280) and the output was 100 watts. I misled you there I think in that I didn't state what the input was for the 130 watts out (I don't remember what that was).

I agree that the efficiency is pretty good. It looks like what I was thinking were the parameters for one tube are actually for 2 tubes (in the handbook) which explains why the power is about half what I expected! Although the idling plate current is 100 ma, about what I thought it should be for 4 tubes. So I expected that fully loaded, I should have around 480ma plate current. ($.48A \times 750V = 360$ watts in: maybe 240 watts out).

As I said, it is NOT grounded grid but grid driven. The input is untuned. I took a small toroid and wound a single winding of 12 turns: The bottom end is grounded. 1st tap at 4 turns is the input, 2nd tap at 8 turns is terminated with the 200 ohm resistor. Taps every 2 turns via a rotary switch are fed to the grid circuit. This allows inputs of various power levels while keeping the input at a constant 50 ohms. Always wanted to try this type of untuned input and it works great.

E-mail broehrig@admin.aurora.edu 73 de Bob, K9EUI
CIS: Data / Telecom Aurora University, Aurora, IL

End of GLOWBUGS Digest 219
